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REMARKS

Claims 1-29 and 132 are now pending in the application. Claims 1, 27 and 132 have been amended herein. Claims 30-131 and 133-139 have been canceled as a result of an earlier restriction requirement.

I. REJECTION OF CLAIMS 1, 27-29 AND 132 UNDER 35 USC §112, 2ND ¶

Claims 1, 27-29 and 132 stand rejected initially under 35 USC §112, second paragraph, as being indefinite. Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Specifically, the Examiner indicates that the phrase "comparing the generated code with each of at least the associated addresses to detect the address-based event" is unclear.

In response, the "generating" feature has been amended to clarify that the code whose purpose is to associate an action with an address-based event is generated in and by the end-point application. The basis for such amendment may be found on page 34 of the specification, for example. In addition, the "comparing" feature has been rephrased to make more clear that the generated code is compared with at least each of the associated addresses to detect the address-based event.

In view of such clarifying amendments, applicants respectfully request withdrawal of the rejection.

II. REJECTION OF CLAIM 27 UNDER 35 USC §101

Claim 27 is rejected under 35 USC §101 as being directed to non-statutory subject matter.

In particular, the Examiner indicates that claim 27 is directed towards a computer program which is not statutorily embodied upon a tangible storage medium. Applicants

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have amended claim 27 to recite the feature that the computer program is stored on a machine-readable medium.

Accordingly, applicants respectfully submit that claim 27 now recites a computer program embodied upon a tangible storage medium. Withdrawal of the rejection is respectfully requested.

III. REJECTIONS OF CLAIMS 1-29 AND 132 UNDER 35 USC §103(a)

Claims 1-5, 7, 9, 11-17, 21-24, 27-29, and 132 stand rejected under 35 USC §102(b) based on *Burkhardt, Jr. et al.* (hereinafter "*Burkhardt*"). Claims 8, 10 and 18-20 are rejected under 35 USC §103(a) based on *Burkhardt* in view of *Official Notice*. Claim 25 is rejected under 35 USC §103(a) based on *Burkhardt* in view of *Yates, Jr. et al.* Claim 26 is rejected under 35 USC §103(a) based on *Burkhardt* in view of *Zargham et al.* Finally, claim 6 is rejected under 35 USC §103(a) based on *Burkhardt* in view of *Nichols et al.* Applicants respectfully request withdrawal of each of these rejections for at least the following reasons.

Claims 1 and 132 are the remaining independent claims in this application, respectively relating to the method and apparatus of the invention. Claims 1 and 132 have both been amended in the same way. Specifically, these claims have been amended to clarify what is meant by an end-point application. Such amendment is supported in the description on page 34 of the application, for example.

The Examiner cites *Burkhardt* as anticipating claims 1 and 132. On the other hand, applicants note that *Burkhardt* discloses an arrangement for synchronising the communication of messages between computers and is specifically concerned with the management of messages from a LAN to and from a star-connected cluster. In particular, *Burkhardt* provides an arrangement in a network interface controller of a master computer which acts as an interface between a LAN and the cluster including the master computer. Effectively, this arrangement is controlling how interrupt requests are dealt with.

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Applicants respectfully point out that a network interface controller is not, and does not include or act as, an end-point application. Instead, such a controller performs routing of messages or data within a computer. The arrangement of *Burkhardt* is responsible for controlling hardware in the form of computers by distributing and responding to interrupt requests. Thus, although *Burkhardt* may be used to synchronise hardware, *Burkhardt* does not disclose synchronising an end-point application in a computer. This is different from the present invention, which specifically provides a method of and apparatus for synchronising an end-point application in a computer as recited in amended claims 1 and 132.

Applicants further note that the arrangement disclosed by *Burkhardt* is similar to the arrangement shown in Figure 1 of the drawings accompanying the present application. In particular, *Burkhardt* is concerned with what is effectively a synchronous network arrangement. The system of *Burkhardt* suffers from the disadvantages described in the paragraph beginning at page 2 line 3 of the present specification.

The present invention, on the other hand, generates the code for associating an action with an address-based event in and by the end-point application as recited in amended claims 1 and 132. For example, when an end-point application is running on a computer and requires receipt of data or the like from elsewhere in a network in order to continue, it generates an appropriate code. The application may then continue or may be suspended. The code is stored and compared with the information stream on the information pathway within the computer. The comparison may be with the address portions only of the information in the information stream or may be with both the address portions and some of the data, according to the needs of the application. When the comparison detects the address-based event in the information stream, an associated action is performed. Although this action may comprise or include generating an interrupt, for example to reschedule the application for running, other associated actions may be performed and examples are given in the description of the present application.

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The present invention is therefore suitable for asynchronous networks which do not have the limitations of synchronous network, as described in the introductory part of the present application. Further, the codes generated in and by the end-point application are specific to the application and do not simply refer to the hardware, such as the computer running the application. This permits communication among applications located anywhere within the network, for example running on the same hardware. Hardware interrupts are not necessary and, for example, the data required by an application may be placed in an appropriate memory location for use when the application is rescheduled for running. The present invention therefore achieves all of the advantages described in the specification and permits fast and flexible network communication among applications with less overhead in the management of network communication than for known arrangements, and particularly known synchronous arrangements of the type disclosed by *Burkhardt*.

Applicants note that *Burkhardt* is not concerned with end-point applications and does not generate codes for associating an action with an address-based event in or by such end-point applications. The Examiner refers to various passages in columns 7 and 8 of *Burkhardt* which describe the operation of the interconnection communications logic 65 illustrated in Figure 5 of *Burkhardt*. From this, it is clear that the address decoders such as 90, 102 and 104 compare addresses on the buss 27 with a fixed address relating to the hardware. In particular, these addresses for comparison are not generated in or by an end-point application. *Burkhardt* therefore fails to disclose this feature, which is an essential feature of the present invention and is defined in the independent claims. The arrangement of *Burkhardt* is therefore completely incapable of synchronising an end-point application.

As a result, applicants respectfully submit that amended claims 1 and 132 are neither anticipated nor obvious in view of *Burkhardt*. Moreover, the various secondary references do not make up for the above-discussed deficiencies in *Burkhardt*. Applicants therefore respectfully request that the Examiner withdraw the rejections of claims 1-29 and 132.

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IV. CONCLUSION

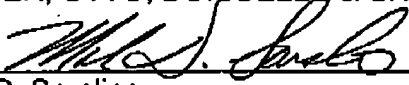
Accordingly, all claims 1-29 and 132 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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DATE: February 24, 2006

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